

CLAIMS

What is claimed is:

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1. A method for generating data at a server, the method comprising:

receiving at a secondary server from a primary server a first request that is based on a

10 client-generated request from a client;

while processing the first request at the secondary server, determining at the secondary server a need for data that is obtainable from a client application at the client using a communication protocol for which the

15 secondary server is not configured to implement; and

in response to determining the need for data that results from using the communication protocol, sending from the secondary server to the primary server a second request for obtaining data from the client that results from using the communication protocol, wherein the

20 primary server executes the communication protocol or delegates execution of the communication protocol to a third server to obtain the resulting data;

in response to sending the second request, receiving

25 at the secondary server from the primary server the resulting data;

in response to receiving the resulting data, continuing processing that is associated with the first request using the resulting data; and

30 returning from the secondary server to the primary server a response for the first request.

2. The method of claim 1 wherein the communication protocol is HTTP (HyperText Transport Protocol).
- 5 3. The method of claim 1 wherein the second request comprises information for an HTTP (HyperText Transport Protocol) redirect message.
4. The method of claim 1 wherein the communication
10 protocol supports an authentication operation.
5. The method of claim 1 wherein the secondary server implements a web service.
- 15 6. The method of claim 1 wherein the communication protocol is SOAP (Simple Object Access Protocol).
7. The method of claim 1 wherein the resulting data is
obtained through user interaction via the client
20 application.

8. An apparatus for generating data at a server, the apparatus comprising:

- 5 means for receiving at a secondary server from a primary server a first request that is based on a client-generated request from a client;
- means for determining at the secondary server, while processing the first request at the secondary server, a need for data that is obtainable from a client application at the client using a communication protocol
- 10 for which the secondary server is not configured to implement; and
- means for sending from the secondary server to the primary server a second request for obtaining data from the client that results from using the communication
- 15 protocol in response to determining the need for data that results from using the communication protocol, wherein the primary server executes the communication protocol or delegates execution of the communication protocol to a third server to obtain the resulting data;
- 20 means for receiving at the secondary server from the primary server the resulting data in response to sending the second request;
- means for continuing processing that is associated with the first request using the resulting data in
- 25 response to receiving the resulting data; and
- means for returning from the secondary server to the primary server a response for the first request.

9. The apparatus of claim 8 wherein the communication
30 protocol is HTTP (HyperText Transport Protocol).

10. The apparatus of claim 8 wherein the second request comprises information for an HTTP (HyperText Transport Protocol) redirect message.

5 11. The apparatus of claim 8 wherein the communication protocol supports an authentication operation.

12. The apparatus of claim 8 wherein the secondary server implements a web service.

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13. The apparatus of claim 8 wherein the communication protocol is SOAP (Simple Object Access Protocol).

14. The apparatus of claim 8 wherein the resulting data
15 is obtained through user interaction via the client application.

15. A computer program product on a computer readable medium for generating data at a server, the computer program product comprising:

5 means for receiving at a secondary server from a primary server a first request that is based on a client-generated request from a client;

means for determining at the secondary server, while processing the first request at the secondary server, a need for data that is obtainable from a client
10 application at the client using a communication protocol for which the secondary server is not configured to implement; and

means for sending from the secondary server to the primary server a second request for obtaining data from
15 the client that results from using the communication protocol in response to determining the need for data that results from using the communication protocol, wherein the primary server executes the communication protocol or delegates execution of the communication
20 protocol to a third server to obtain the resulting data;

means for receiving at the secondary server from the primary server the resulting data in response to sending the second request;

25 means for continuing processing that is associated with the first request using the resulting data in response to receiving the resulting data; and

means for returning from the secondary server to the primary server a response for the first request.

16. The computer program product of claim 15 wherein the communication protocol is HTTP (HyperText Transport Protocol).

5 17. The computer program product of claim 15 wherein the second request comprises information for an HTTP (HyperText Transport Protocol) redirect message.

10 18. The computer program product of claim 15 wherein the communication protocol supports an authentication operation.

19. The computer program product of claim 15 wherein the secondary server implements a web service.

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20. The computer program product of claim 15 wherein the communication protocol is SOAP (Simple Object Access Protocol).

20 21. The computer program product of claim 15 wherein the resulting data is obtained through user interaction via the client application.

22. A method for generating data at a server, the method comprising:

receiving a first request at a primary server from a client;

5 sending to a secondary server from the primary server a second request in response to receiving the first request from the client; and

receiving at the primary server from the secondary server a third request for obtaining data from the client
10 that results from using a communication protocol for which the secondary server is not configured to implement.

23. The method of claim 22 further comprising:

15 sending a redirect message via the client to a server configured to obtain data that results from using the communication protocol;

in response to sending the redirect message,
receiving the resulting data at the primary server;

20 forwarding the resulting data from the primary server to the secondary server;

receiving at the primary server from the secondary server a response to the second request that is based on a computation using the resulting data; and

25 sending from the primary server to the client a response to the first request that is based on a computation using the response to the second request.

24. The method of claim 23 further comprising:

30 running the communication protocol at the primary server to obtain the resulting data.

25. An apparatus for generating data comprising:
means for receiving a first request at a primary
server from a client;
means for sending to a secondary server from the
5 primary server a second request in response to receiving
the first request from the client; and
means for receiving at the primary server from the
secondary server a third request for obtaining data from
the client that results from using a communication
10 protocol for which the secondary server is not configured
to implement.
26. The apparatus of claim 25 further comprising:
means for sending a redirect message via the client
15 to a server configured to obtain data that results from
using the communication protocol;
means for receiving the resulting data at the
primary server in response to sending the redirect
message;
20 means for forwarding the resulting data from the
primary server to the secondary server;
means for receiving at the primary server from the
secondary server a response to the second request that is
based on a computation using the resulting data; and
25 means for sending from the primary server to the
client a response to the first request that is based on a
computation using the response to the second request.
27. The apparatus of claim 26 further comprising:
30 means for running the communication protocol at the
primary server to obtain the resulting data.

28. A computer program product on a computer readable medium for generating data, the computer program product comprising:

- 5 means for receiving a first request at a primary server from a client;
- means for sending to a secondary server from the primary server a second request in response to receiving the first request from the client; and
- 10 means for receiving at the primary server from the secondary server a third request for obtaining data from the client that results from using a communication protocol for which the secondary server is not configured to implement.

15 29. The computer program product of claim 28 further comprising:

- means for sending a redirect message via the client to a server configured to obtain data that results from using the communication protocol;
- 20 means for receiving the resulting data at the primary server in response to sending the redirect message;
- means for forwarding the resulting data from the primary server to the secondary server;
- 25 means for receiving at the primary server from the secondary server a response to the second request that is based on a computation using the resulting data; and
- means for sending from the primary server to the client a response to the first request that is based on a
- 30 computation using the response to the second request.

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30. The computer program product of claim 29 further comprising:

means for running the communication protocol at the primary server to obtain the resulting data.